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Detection of white spot syndrome virus from the ghost shrimp *Nihonotrypaea japonica* inhabiting the sand bottom of kuruma prawn culture ponds

Since 1993, white spot syndrome (WSS) caused by white spot syndrome virus (WSSV) has been a serious problem in the kuruma prawn *Penaeus japonicus* culture industry in Japan. To infer the transmission routes of WSS, the presence of WSSV in non-cultured crustaceans and other invertebrates from kuruma prawn culture ponds in Oita prefecture were studied using polymerase chain reaction (PCR). All the swimming crab *Charybdis japonica* and 33% of the surf clam *Mactra chinensis* caught from the prawn culture ponds where WSS was epizootic, were WSSV-positive. Ten percent of the ghost shrimp *Nihonotrypaea japonica* collected from the sand bottom of the prawn culture ponds which had been previously disinfected and dried after the epizootics of WSS, were also WSSV-positive by nested PCR. Healthy kuruma prawn (WSSV-negative) were reared with the WSSV-positive ghost shrimp caught from the culture ponds, in a tank for 15days. After cohabitation, 25% of the kuruma prawn were WSSV-positive. It is suggested that the ghost shrimp *N. japonica* invading and inhabiting the kuruma prawn culture ponds are important as a carrier of WSSV in Japan.